REMARKS

Claims 33-40 remain pending in this application. Of these, claims 38 and 39 stand allowed, and claims 33-37 and 40 stand rejected under 35 USC §103 based on Greenwood.

A detailed response to the rejection follows. However, applicant reserves all applicable rights not exercised in connection with this response, including, for example, the right to swear behind one or more of the cited references, the right to rebut any tacit or explicit characterization of the references, and the right to rebut any asserted motivation for combination. Applicant makes no admission regarding the prior art status of the cited references, regarding them only as being of record in the application.

Response to §103 Rejection

Claims 33-37 (and 40) were rejected under 35 USC §103(a) as allegedly unpatentable over Greenwood (U.S. Patent 5,949,638). In response, applicant submits respectfully that the Action does not set forth a proper prima facie case of obviousness.

Specifically, the Action concedes that Greenwood lacks any express teaching regarding "the use of sufficient force to establish electric contact of two or more of the conductive ribbons through their respective insulative coatings," but asserts that it would have been obvious ... to do so because one apparently would want to reduce "internal resistance between the conductive ribbons" and because "Greenwood also discloses that the different anode layers can engage along the irregular oxide, at least in some locations there is breaking through the oxide (see col.4, lines 20-34).

First, Greenwood has no need for the proposed suggested modification, because it uses tabs (terminal strips) to electrically connect each of its anode foils together. See, Figure 2 and column 4, line 64 – column 5, line 5. As such, one of skill would not have recognize any need to deliberately establish electrical contact between anode foils through their respective insulative coatings. Any anode-to-anode electrical contact through the insulation would be redundant to the tab connections. Further, use of the sufficient force to establish these unnecessary connections between a solid core anode foil and a notoriously brittle anode foil would appear to pose additional risk of assembly failure during winding.

The law requires that a prima facie case of obvious must include objective prior art teachings that one of skill would have found it desirable to make the proposed combination or modification. Here, the Action fails to substantiate that one of ordinary skill would have recognized it desirable to modify Greenwood to "use ..sufficient force to establish electric contact of two or more of the conductive ribbons through their respective insulative coatings." And more importantly, Greenwood--the only evidence offered to support the rejection--teaches use of anode tabs together with brittle anodes and thus away from the use of sufficient force to establish electrical contact through their insulative coatings.

Second, use of the sufficient force to establish the requisite electrical contact is not inherent to Greenwood. The Response to Amendment section of the Action (page 4), states that "the anode, cathode, and separator layers are wound together, as tight as reliably possible for optimum performance ... and that it is inherent that the anode layers contact through the irregular oxide layer of the etched or roughened, at least at some of the point[s] of breakage." This statement indicates that the rejection is premised on the notion that the admittedly missing element based on use of sufficient force to establish electrical contact through the insulative coatings is inherent to Greenwood.

However, the law, as evidenced in MPEP §2112, mandates that "in relying upon the theory of inherency, the examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." (emphasis in original). Here, there's been no showing, nor even an assertion, that Greenwood necessarily applies sufficient force to establish electrical contact through its insulative coatings.

Moreover, applicant submits respectfully that the citation to column 4, lines 20-34 also does not appear to support necessary application of the sufficient force. The Action cites column 4, lines 20-34 as disclosing that "the different anode layers can engage along the irregular oxide, at least in some locations there is breaking through the oxide." However, in studying the passage, it's not clear that sufficient force is necessarily applied to break the oxide and it's also not clear that if any breaking occurs electrical contact will necessarily result. This uncertainty, or lack of necessity, is demonstrated most clearly at column 4, lines 24-34, which state

> "It is speculated that even when a break occurs in the porous anode foil during winding, the irregular oxide ... of the solid core anode engaging along the irregular oxide ... a porous anode foil provides sufficient **grip** to prevent assembly process failure. Thus, even though a continuity break of the brittle porous anode foil may occur, the assembly process is not disrupted and the broken porous foil remains in engaging relationship with a continuous surface of solid core anode foil." (Emphasis added.)

What's clear from this excerpt is that: Greenwood doesn't teach that breaks necessarily occur; Greenwood only speculates about what happens in the event of a break; Greenwood is silent about the possibility of any electrical contact between the interfacing anodes in the event of a break; and Greenwood doesn't present breaking as a desirable or intentional result of its winding, but rather as something that needs to be tolerated if it happens to occur. The clear and collective thrust of this evidence is that use of sufficient winding force to establish electrical contact through the insulative coatings does not necessarily occur as a result of Greenwood's teachings.

Third, the Action cites zero evidence to substantiate that one of skill at the time of invention would have been moved to further reduce internal resistance between the conductive ribbons, as proposed in support of the rejection. Indeed, Greenwood itself reports that its internal resistance is acceptable. See, for example, column 4, lines 7-12, where Greenwood states: "To increase anode efficiency applicants have found it is preferred to use a porous anode and particularly to use a layered arrangement of porous anodes which enable access to inner anode surfaces for an acceptable internal resistance." (Emphasis Added.) Moreover, this statement suggests that it's the electrolyte access to the inner anode surface that provides the acceptable internal resistance, and that it's the arrangement of the porous anodes provide the access.

The role of any electrical contact between adjacent anode layers is neither stressed, nor even mentioned in connection with an acceptable internal resistance. Thus, even if one of ordinary skill were moved to further improve the Greenwood's acceptable internal resistance, there's no evidence in record that applying sufficient winding force to establish electrical contact between two or more conductive ribbons in an anode stack would reduce this resistance.

Conclusion

In view of the highlighted reasons, applicant requests respectfully that the Examiner reconsider and withdraw the rejections based on Greenwood. Additionally, applicant invites the Examiner to telephone its patent counsel Eduardo Drake at (612) 349-9593 to resolve any remaining concerns regarding the allowability of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

MICHAEL J. O'PHELAN ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 349-9593

Date 26 Oct. 2004

By _____
Eduardo E. Drake
Reg. No. 40,594

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 26 day of October, 2004.

Paula Suchy
Name

Paula Suchy
Signature